



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,451	02/19/2004	Hans-Peter Foscr	IVd15US	5190

7590
John C. Thompson
69 Grayton Road
Tonawanda, NY 14150

08/17/2007

EXAMINER

WERNER, JONATHAN S

ART UNIT	PAPER NUMBER
----------	--------------

3732

MAIL DATE	DELIVERY MODE
-----------	---------------

08/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,451

Applicant(s)

FOSER ET AL.

Examiner

Jonathan Werner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-17, 19-22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-17, 19-22 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This action is in response to Applicant's amendment received 6/3/07.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/3/07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 14-17, 19-22, 24 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braiman (US 5,346,397) in view of Fisher et al. (US 6,183,256).

4. As to claims 1 and 20, Braiman discloses a dental restoration comprising a base structure (13) adapted to be placed over a prepared tooth stump (column 3, lines 53-

Art Unit: 3732

54); a pre-fabricated (column 4, lines 5-6) comparatively hard (column 2, line 25) over structure (10) which partially covers the base structure when assembled (Figure 3), wherein the over structure has at least one pre-configured bite element (top portion, Figure 3); and a coupling element for coupling the base structure and the over structure with one another (Figure 3), the coupling element including an interconnecting material (14) which interconnects the base structure and the over structure, wherein the restoration can be constructed so that it does not need to be fired since Braiman discloses that a catalyst can be used to cause the components of the restoration to harden by photo-initiation (column 3, lines 65-67). However, Braiman fails to explicitly disclose that the interconnecting material is light-polymerizable. Fisher et al. teaches a dental restoration and method for producing said restoration in which the restoration comprises a base structure (16), an overstructure (22) and a coupling element referenced as intermediary layer (18,20,21) whereby said coupling element includes an interconnecting material (21) that is light-polymerizable (column 4, lines 25-33; column 5, lines 32-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the interconnecting material of Braiman light-polymerizable in order to easily and quickly harden it for bonding to the overstructure. Examiner furthermore remarks that in regard to claim 1, it should be noted that Applicant is claiming an article of manufacture and not the process of forming/making the device. Accordingly, the manner in which the device is formed in claim 1, i.e. not requiring a time consuming firing of the assembly, is considered a

Art Unit: 3732

product-by-process claim and is hence given little patentable weight since the final product is shown as described.

5. As to claim 2, the over structure of Braiman includes a covering element (11) that is interconnected with the bite element and covers over at least one of a lingual, buccal, mesial, and distal region of the base structure, the covering element being interconnected to the base structure via the interconnecting material (Figure 3). As to claim 3, the interconnecting material extends in a surface covering manner between the base structure and the over structure and the interconnecting material fills the area between the base structure and the over structure (Figure 3). As to claims 4 and 21, Figure 3 shows the over structure has a an inner contour that is compatibly configured with respect to an outer contour of the base structure; and the inner contour of the over structure and the outer contour of the base have respective circular shapes. As to claim 5, the bite element extends over the teeth of a dental patient receiving the restoration and is configured as a single member component (Figure 3). As to claim 6, it can be seen from Figure 3 that the restoration extends to preparation borders of the teeth and the covering element covers the medial and distal sides of the teeth. As to claims 7 and 24, the overstructure partially covers the base structure and the uncovered portion of the base structure is covered by an opaque material (column 3, lines 50-51).

6. As to claims 8 and 26, Figure 3 of Braiman shows the over structure partially covers the base structure and the uncovered portion of the base structure is covered by

Art Unit: 3732

the interconnecting material. As to claims 9 and 10, the over structure is formed by the bite element and the covering element and the covering element is comprised of ceramic (column 4, line 29-31) or plastic (column 3, lines 63-64). As to claim 11, Fisher further teaches the covering element can be made of aluminum oxide ceramic or zirconium oxide ceramic (column 1, lines 40-47 & column 2, lines 19-34). As to claim 12, the interconnecting material is comprised of ceramic (column 3, lines 50-51). As to claim 14, the base structure is a metal frame (column 3, line 50). As to claim 15, Figure 13 shows the dental restoration is configured for a pre-molar or a molar. As to claim 16, the bite element of the overstructure forms a tooth protuberance (Figure 3). As to claim 17, the over structure is a single member component and the bite element and the covering element are comprised of the same material (Figure 3). As to claims 19 and 27, Figure 3 shows that the base structure is capable of being securable to a peg supported by a jaw of a patient and an attachment element (11) operable to be secured to neighboring tooth structures. As to claim 22, Figure 3 shows the step of pressing the over structure onto the interconnecting material. With respect to claims 28 and 29, Braiman discloses the dental restoration as previously described but fails to disclose the step of cleaning a spillover of interconnecting material after the step of pressing the over structure onto the material. However, it would be an obvious matter of choice to one having ordinary skill in the art at the time of applicant's invention to clean said spilled interconnecting material so that desired shape of the dental restoration can be preserved in order to properly fit it within a patient's mouth.

Art Unit: 3732

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Braiman in view of Fisher et al., as applied to claim 20 above, and further in view of Sozio et al. (US 4,585,417). Braiman and Fisher et al. disclose the dental restoration as previously described but fail to disclose evaluating a prospective bite situation and manipulating the base structure and over structure relative to one another in an evaluation device such as an articulator. Sozio, however, teaches a method of making dental restorative device (Abstract) that is manipulated by using an articulator (column 7, lines 60-64) to simulate jaw movement and hence evaluate a prospective bite situation. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to evaluate a prospective bite situation and manipulate the base structure and over structure relative to one another using an articulator in order to simulate proper jaw movements as taught by Sozio.

Response to Arguments

8. Applicant's arguments with respect to claims 1 and 20 have been considered but are moot in view of the new ground(s) of rejection.

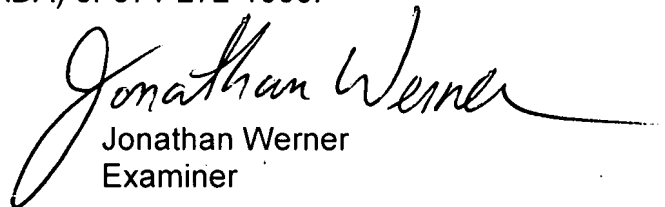
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.


Art Unit: 3732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jonathan Werner
Examiner

8/1/07


MELBA N. BUMGARNER
PRIMARY EXAMINER